

## **HFC PLANT CERTIFICATION PROCEDURE USING CABLE MODEMS**

### **ABSTRACT OF THE DISCLOSURE**

5 A system for testing a cable network during normal operation interleaves test  
signals with live data traffic. Installed cable modems are used to generate the test  
signals. During live communication, such modems send upstream data at allotted  
time periods. Periodically, there are time slots when no modem is transmitting on the  
network. During these times, specific modems may be directed to transmit specific  
test signals. A controller such as a cable modem termination system directs specific  
10 modems to transmit signals at defined frequencies and powers during specific time  
slots. In this manner, the system can monitor the frequency response of the cable  
network at various locations, and thereby determine "on-the-fly" when maintenance  
or modification is required.